

Translation of the  
original operating manual

- English -

# CAP upgrade kit **HDS 910**



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**KATHREIN**  
Antennen • Electronic

## GENERAL

Chère Cliente, Estimado cliente,

### F

Vous pouvez obtenir un manuel d'installation en français chez notre représentant en votre pays ([http://www.kathrein.de/include/kontakte\\_groups\\_eng.cfm?kontinent=1&gruppe=SAT](http://www.kathrein.de/include/kontakte_groups_eng.cfm?kontinent=1&gruppe=SAT)) ou le télécharger de notre page d'ouverture (<http://www.kathrein.de/en/sat/index.htm>).

### E

Para obtener la versión española de nuestro manual de instalación, contacte nuestros representantes en su país ([http://www.kathrein.de/include/kontakte\\_groups\\_eng.cfm?kontinent=1&gruppe=SAT](http://www.kathrein.de/include/kontakte_groups_eng.cfm?kontinent=1&gruppe=SAT)) o bajela de nuestra página de Internet (<http://www.kathrein.de/en/sat/index.htm>).

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## HDS 910 COMPONENTS / SCOPE OF SUPPLY



HDS 900  
(rear view)



UFS 940sw  
(front view)

See the UFS 940sw operating manual for a rear view of the receiver together with explanation of functions and operating instructions.

## SCOPE OF SUPPLY

The HDS 910 upgrade kit consists of:

- HDS 900 control unit
- 1 x coaxial cable 9 m long (for use in connection with CAP 210/310),
- 1 x 8-pin cable adapter 0.15 m long (for use in connection with CAP 100)
- 1 x 2-pin cable adapter 0.15 m long (for use in connection with CAP 100)
- 4 chipboard screws 4 x 40
- UFS 940sw HDTV-DVB-S receiver with connecting cables, infrared sensor and infrared remote control
- HDS 910 upgrade kit user instructions
- UFS 940sw satellite receiver operating manual

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# PROPER USE

## PROPER USE (USE FOR THE INTENDED PURPOSE)

The HDS 910 upgrade kit is intended for upgrading the following Kathrein products:

Product	Current status				Status after upgrade			
	Ana- logue	Digital	HDTV	Recording (USB)	Ana- logue	Digital	HDTV	Recording (USB) <sup>*)</sup>
CAP 100 <sup>**) )</sup>	x		-	-	-	x	x	x
CAP 200		x	-	-	-	x	x	x
CAP 210		x	-	-	-	x	x	x
CAP 300		x	-	-	-	x	x	x
CAP 301		x	-	-	-	x	x	x
CAP 310		x	-	-	-	x	x	x

The CAP units listed in the table are used for reception from satellites of digital TV and radio channels (prior to the upgrade the CAP 100 can receive only analogue). The automatic positioner acts as a turntable for the Kathrein BAS 60 antenna.

The turntable can be used to receive digital TV and radio signals in the frequency range from 10.70 to 12.75 GHz; the antenna cannot receive terrestrial signals (e.g. DVB-T).

**After the upgrade, the turntable can be used only in conjunction with the UFS 940sw DVB-S receiver.**

In conjunction with this receiver, the turntable provides fully automatic alignment of the BAS 60 to receive digital satellite signals. The turntable is designed for use on stationary caravans or motor homes.

**Any use other than that specified above will invalidate the warranty or guarantee.**



**When any of the above CAP units is upgraded by means of the HDS 910 upgrade kit, no changes to the turntable and/or the BAS 60 are necessary! The existing cabling can also still be used!**

**A BAS 50 planar antenna in use hitherto must be replaced with a BAS 60 (BN 216195) (this applies only in connection with the CAP 100)!**

<sup>\*)</sup> This function can be used only when an external USB storage medium (such as an external hard disk with a USB connection <sup>\*)</sup>) is connected and is formatted in the "FAT32" or "EXT2" format. The USB storage medium that is connected may not have more than three partitions, since the receiver cannot manage and use more than three partitions. Tested only with hard disks from the Kathrein product range (see also: [www.kathrein.de](http://www.kathrein.de) → Service → FAQs)

<sup>\*\*) )</sup> BAS 50 must be replaced with a BAS 60 (BN 216195)

## PROPER USE

**The following circumstances result in the loss of all warranty and liability claims towards the manufacturer:**

- Improper installation
- Structural changes or interference with the components and mounting accessories in the set, which could endanger both the mechanical and functional reliability
- Improper or forcible opening of the components
- Disregard of the further installation and safety instructions in these user instructions and in the original manual for the respective CAP product

**Note:** *The maximum permissible speed for vehicles with a receiver unit mounted on the roof is 130 km/h. Before commencing a journey, the satellite dish must always be lowered into horizontal position (park position).*

The turntable may be operated in an ambient temperature range of -10 °C to +40 °C. Operating the system outside this range may result in malfunctions or damage to the system. When choosing the location for installation of the UFS 940sw, ensure there is adequate ventilation.

### **The system may only be installed by qualified specialist personnel!**

To prevent hazards during installation, operation or when driving on public highways, the instructions and information in this manual must be strictly adhered to. Proper performance of the upgrade of the system is a pre-requisite for conformity with the corresponding standards. This is documented in advance by the CE mark and the declaration of conformity in the appendix of the respective CAP user manual.

# SAFETY INSTRUCTIONS - IMPORTANT NOTES

## Proper installation and safety

### Essential information

The correct execution of the upgrade (for instance the electrical connection work) is important for safety.

Modifications to the electrical installations in the vehicle should only be carried out by a specialist in vehicle electrics. Do not make any unauthorised changes to the turntable.

### Cables

Lay all cables such that nobody can tread on them or trip over them.

To prevent parasitic induction or interference emissions, when extending the antenna cable use 75  $\Omega$  coaxial cable with a screening factor of at least 75 dB.



**If you tied the cables together with wire or similar materials, remove this to prevent the risk of fire!**

When connecting the power cables (receiver and turntable) to the vehicle electrical supply, make sure that the cable polarity is not reversed.

**If the cable polarity is reversed there is a risk of thermal overload and damage to components when the equipment is powered up!**



**Never remove or bypass the fuse in the cable – cable fire hazard!**

# INSTALLATION AND CONNECTION

## REQUIRED TOOLS AND EQUIPMENT

- Flat-bladed screwdriver for M5 screws
- Cross-head screwdrivers for M3 and M5 screws

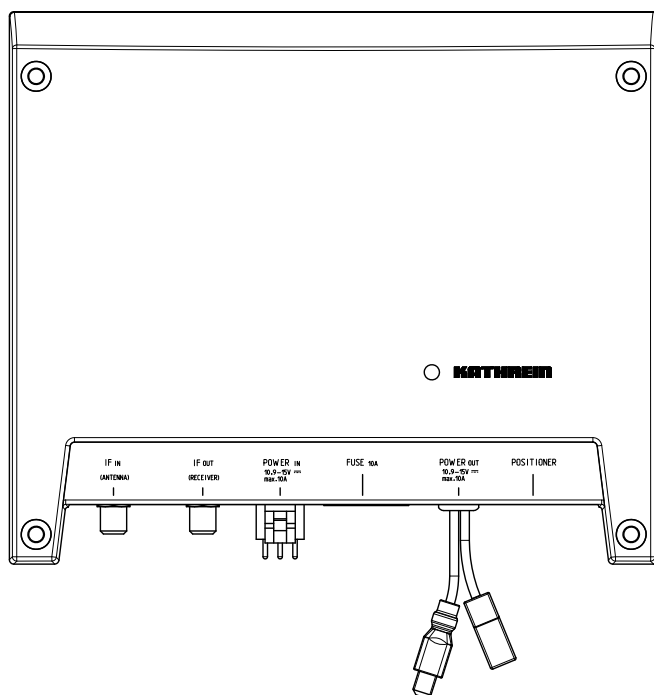
## EXCHANGING THE CONTROL UNIT



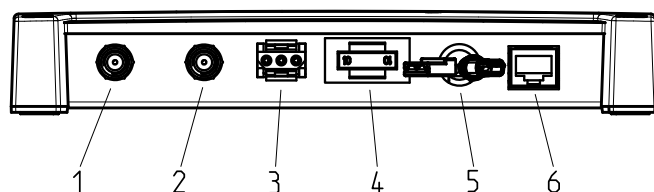
Before starting any installation work, it is essential you disconnect all the units concerned from the mains. Risk of fatal injury due to electric shock!

## VIEWS OF THE HDS 900 CONTROL UNIT

Plan view



Rear View



Connection side (listing from the left):

1. F socket for connection to the turntable
2. F socket for connection to the UFS 940sw satellite receiver
3. Connection plug for the overall power supply
4. Fuse (10 A) \*)
5. Connections for the power supply to the turntable (the turntable must not be powered via a separate power supply unit!)
6. Connection socket for the control cable from the turntable

\*) The only fuse that may be fitted is a 10A flat fuse supplied by Elschukom, with the article number 162.6385.5102 or an equivalent replacement type.

# INSTALLATION AND CONNECTION

## DISCONNECTING THE CONNECTIONS TO THE OLD CONTROL UNIT

- Mark the coaxial cable that comes from the turntable to the control unit (port: "IF IN"), so that it will not later be confused with the coaxial cable that runs to the receiver.
- Now disconnect all connections to the control unit
- Remove the old control unit

## INSTALLING THE NEW CONTROL UNIT

The four existing screw sockets (see diagram on the next page) allow you to attach the control unit to a solid flat surface.

In addition, the following points should be taken into account:

- The wall thickness at the installation location must be at least 12 mm, as otherwise the screws will break through on the other side or damage the surface
- Ensure that the cupboard or storage compartment in which the unit is housed is adequately ventilated, to prevent a build up of heat. Carpet-covered walls are unsuitable for installation
- Take care when tightening the screws not to damage any cables etc. behind or in the wall
- The control unit is designed exclusively for installation in dry, interior locations. The installation location must be protected against moisture.
- The cable lengths must be taken into account when choosing the installation location
- The connecting cables must be provided with strain reliefs

### Connections and fusing of the unit:

All cables for connection to the control unit are connected at the rear of the unit (see also "Views of the HDS 900 control unit" in this section). When selecting the installation location, allow sufficient clearance at the rear of the unit for these cables and their plugs.

The plug-in fuse is also located at the rear. This fuse (for the type see "Views of the HDS 900 control unit" in this section) should be accessible even after installation, so that it can easily be exchanged if required.



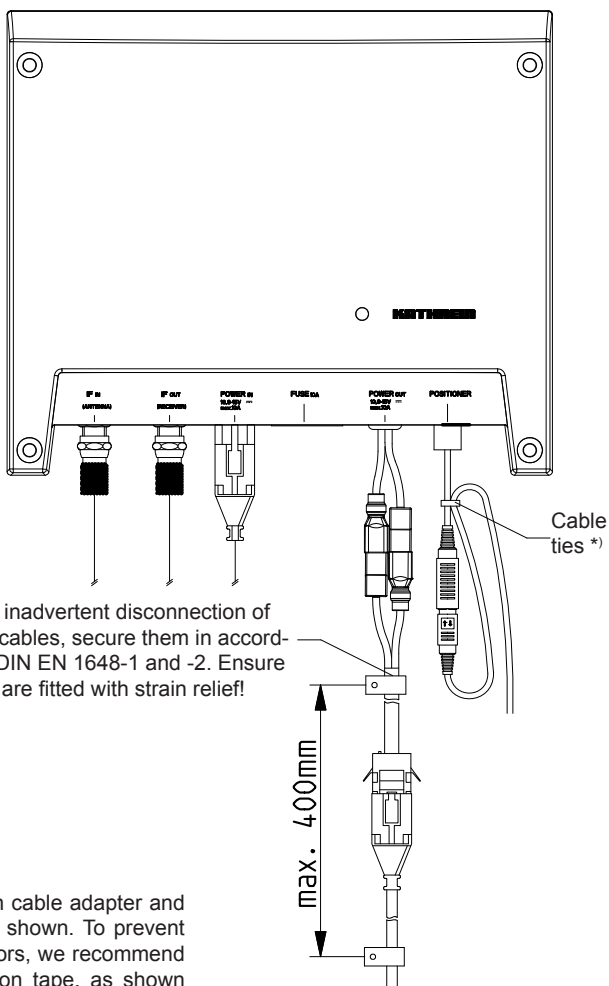
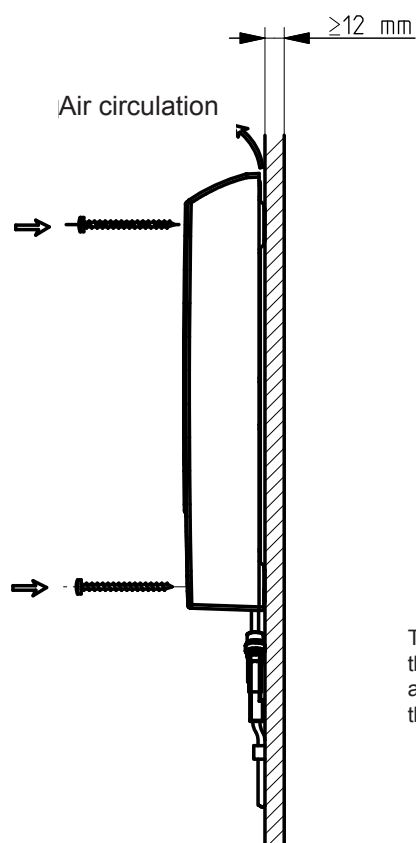
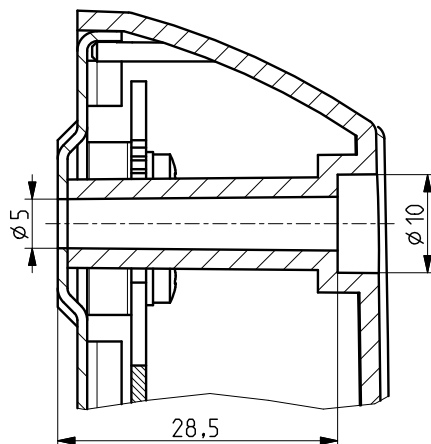
**Under no circumstances use countersunk-head screws for installation (see diagram on the right), since these can damage the screw sockets on the control unit. Wherever possible, use the wood screws supplied with the upgrade kit.**



# INSTALLATION AND CONNECTION

## Use of other screws:

If because of the installation location or factors associated with it, the screws supplied cannot be used, refer to the diagram alongside when selecting the screws to be used. This shows you the cross-section area of the screw sockets on the control unit and shows which screws (diameter, screw head profiles etc.) can be inserted into the control unit support.



\*) When upgrading a CAP 100 system, the 8-pin cable adapter and the power supply adapter should be used as shown. To prevent inadvertent disconnection of the plug connectors, we recommend they are secured with a cable tie or insulation tape, as shown above!

# INSTALLATION AND CONNECTION

Marking out the screw / drill points at the installation location:

Accurately mark out the screw / drill points at the installation location.

*The casing of the HDS 900 control unit is identical to the control unit for the CAP 200/300/301 turntables.  
If necessary you can use the same securing holes.*

## INSTALLATION

Secure the control unit at the installation location previously selected and prepared.



**Do not force it, and take care that not to damage either the screw sockets, the control unit itself or any cables that are already attached to the control unit!**

## CONNECTING THE CONTROL UNIT

- Connect the coaxial cable (that comes from the turntable) to the “IF IN” port
- Now connect the other cables to the new control unit

*If any cable connection cannot be made because the plug or socket does not match, there are two adaptor cables included in the upgrade kit!*

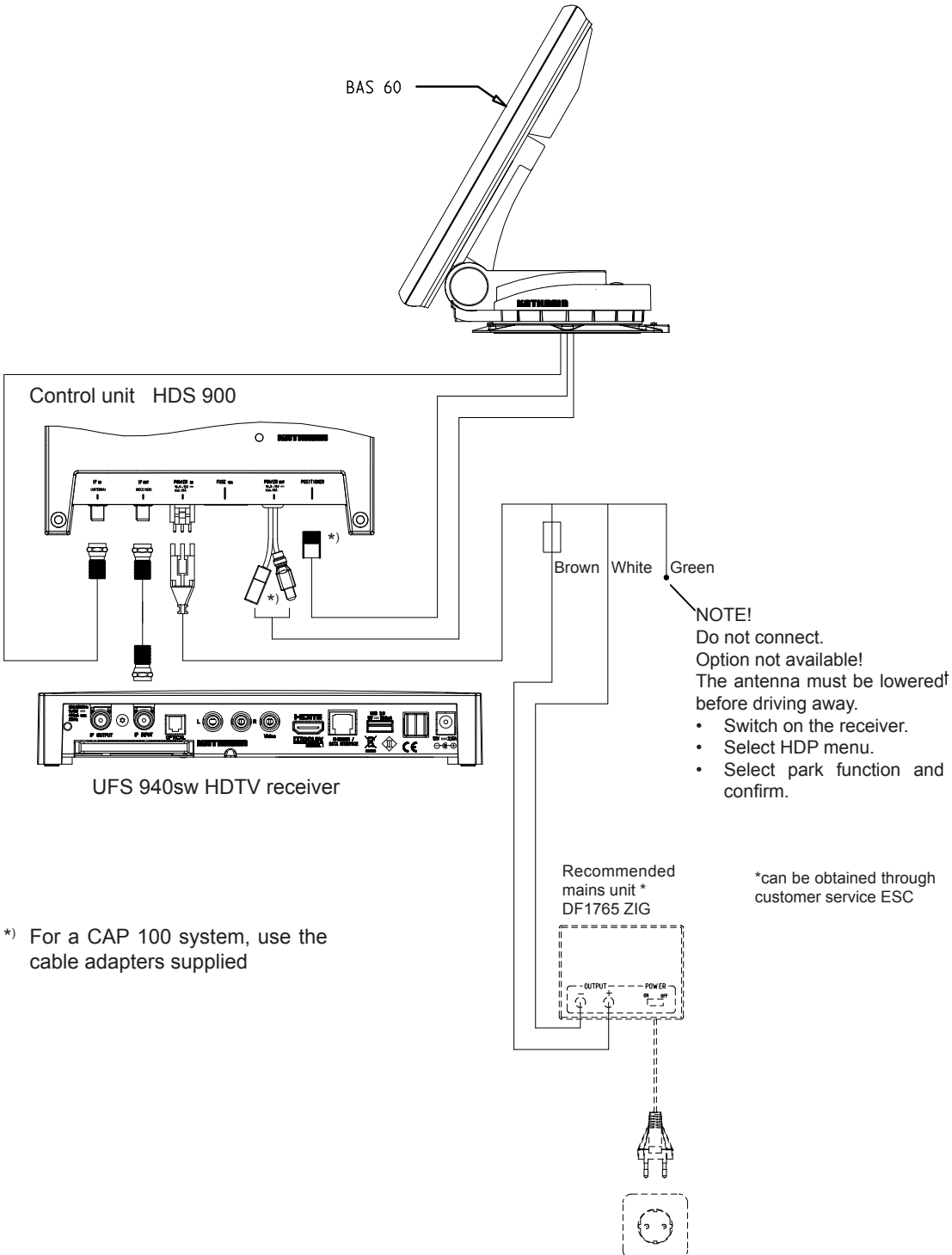
**Avoid laying the cables across sharp edges and secure the cables against possible chafing points.**



**The fuses in the cable and in the control unit must never be bridged – cable fire hazard!**

## INSTALLATION AND CONNECTION

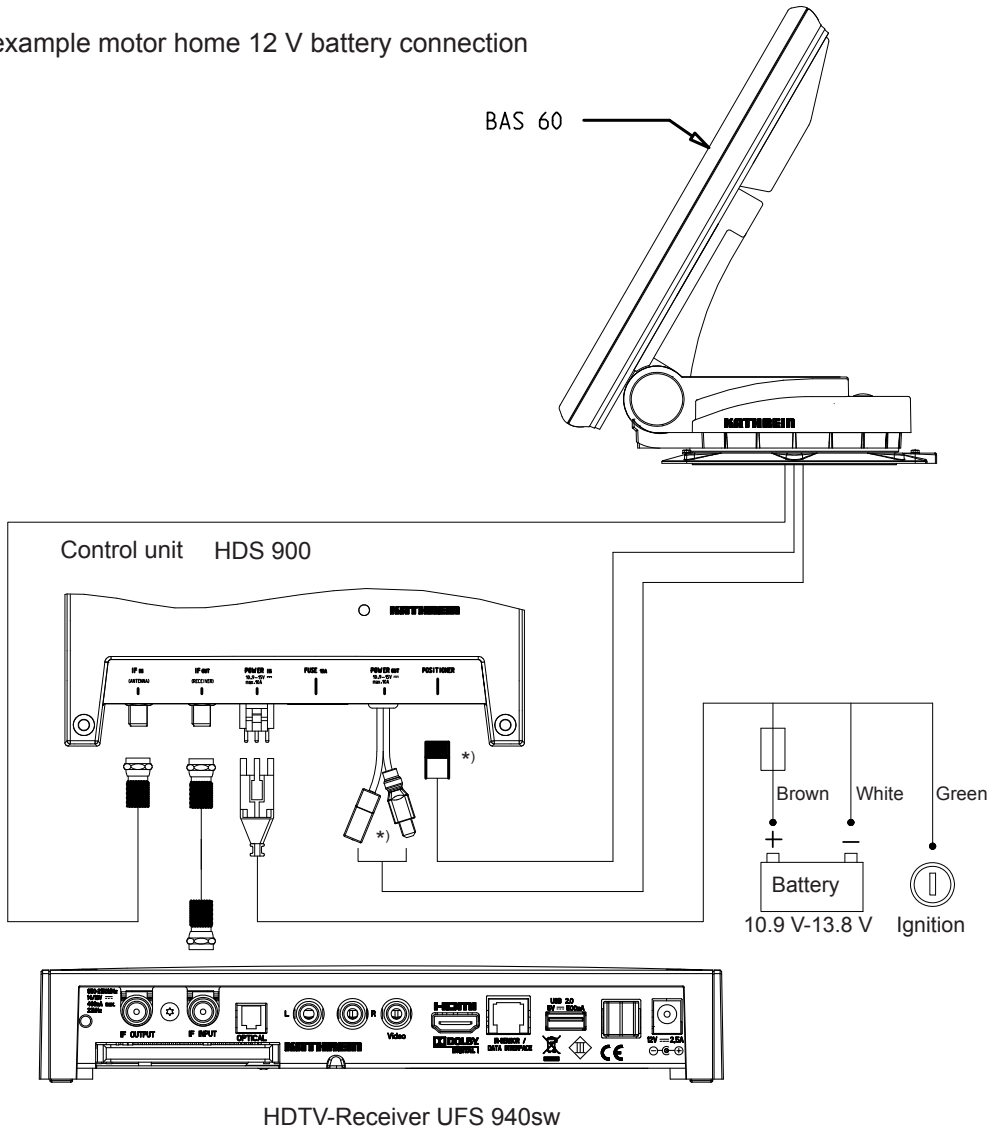
## Connection example for a caravan



# INSTALLATION AND CONNECTION

## Connection example motor home

### Connection example motor home 12 V battery connection



\*) Bei CAP 100-Anlage die beigelegten Kabeladapter verwenden

# INSTALLATION AND CONNECTION

## INSTALLATION OF THE UFS 940SW

### SELECTION OF A SUITABLE INSTALLATION LOCATION

**Note:** *When choosing the installation location, bear in mind that the rear of the unit should always be accessible. The UFS 940sw is equipped with a power saving circuit and a separate infrared transmitter, which means that the unit does not need to be placed where it is visible. You can therefore fit the UFS 940sw out of sight in any location, e.g. on cupboard walls, side walls or the base of storage compartments.*

The four screw sockets provided (see diagram on the next page) allow you to install the receiver not only resting on a shelf but also to fix it there or in other positions.

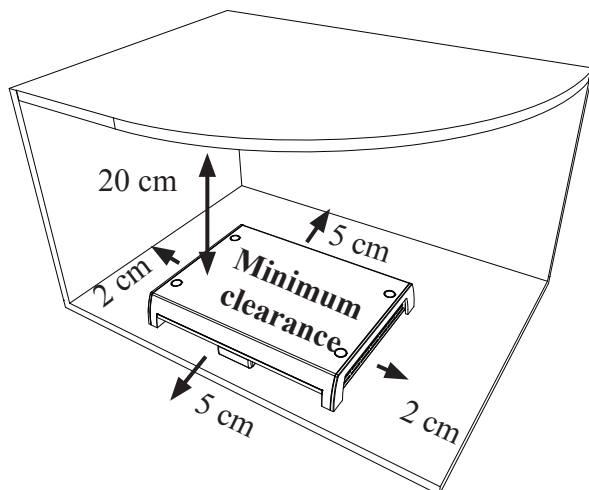
In addition, the following points should be taken into account:

- The wall thickness at the installation location must be at least 15 mm, as otherwise the screws will break through on the other side or damage the surface
- Ensure that the cupboard or storage compartment in which the unit is housed is adequately ventilated, to prevent a build up of heat. Carpet-covered walls are unsuitable for installation
- Take care when tightening the screws not to damage any cables etc. behind or in the wall
- The receiver is designed for installation in exclusively dry, interior locations. The installation location must be protected against moisture
- The cable lengths must be taken into account when choosing the installation location
- The connecting cables must be provided with strain reliefs

#### Ventilation:

The heat generated within the receiver can be dissipated from the following sides of the casing: Bottom, left, right and top. When selecting the installation location, make sure that these sides are not obstructed or covered. If the unit is operated continuously with insufficient ventilation, this can negatively affect the length of its working life!

Maintain a clearance of at least 20 cm above or below the unit, 2 cm to either side and 5 cm behind it, to allow unobstructed dissipation of the heat generated.



**The unit monitors its temperature in operation. Premature failure of the unit due to continuous operation at temperatures higher than the recommended operating temperature as a result of insufficient ventilation does not constitute grounds for a claim under warranty/guarantee.**

# INSTALLATION AND CONNECTION

## Connections and fusing of the unit:

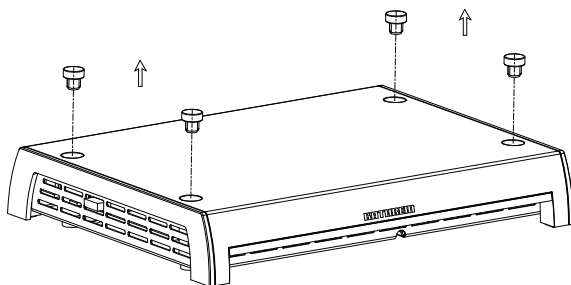
All connection cables for connection to the receiver (including the infra-red sensor) are connected at the rear of the unit (see also the item "Connection example" in this section). When selecting the installation location, allow sufficient clearance at the rear of the unit for these cables and their plugs.

On the left hand side of the receiver viewed from the front there is a fuse inserted from the outside. This fuse (for the type, see the section "Important Information" in the receiver operating manual) should be accessible even after the unit has been installed, so that it can easily be exchanged if required.

## PREPARATIONS

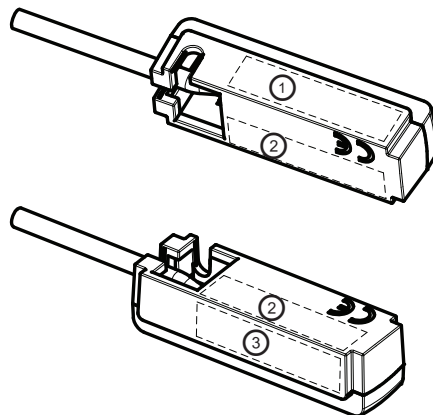
### Removing the blanking plugs:

When the unit is delivered, the screw sockets are covered with blanking plugs. These can be pushed out, using the screws supplied (working upwards from below, see diagram on the right).

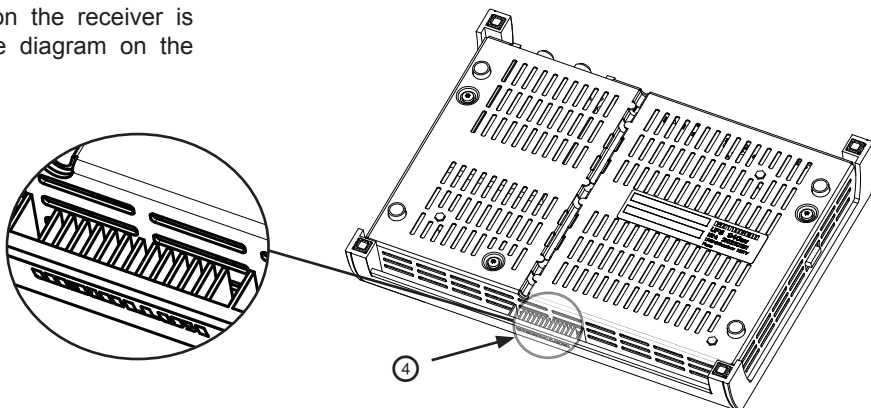


### Attaching the infra-red sensor:

If the unit is installed in open view, you can attach the infra-red sensor directly to the unit; or if the receiver is installed in a concealed location, you should position the infra-red sensor where it can be clearly seen by the remote control unit. There are three places on the infra-red sensor where the adhesive strips supplied can be attached (see diagram on the right ①, ② and ③). The attachment point ① is provided for sticking the infra-red sensor directly to the unit.



The attachment point on the receiver is on the front panel (see diagram on the right ④).

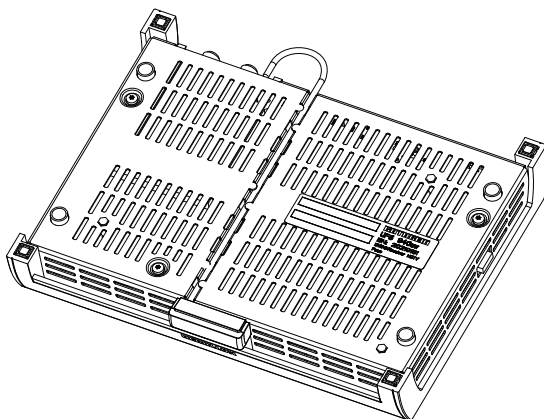


## INSTALLATION AND CONNECTION

Using the adhesive strips supplied, now install the infra-red sensor either on the receiver or at the chosen location. If the infra-red sensor is installed on the unit, its cable can be threaded in at its base, as for a phone, and routed to the rear of the receiver (see diagram on the right).



**When threading in the cable, take care not to damage its sheath.**



### IMPORTANT INSTRUCTIONS FOR INSTALLATION



**Under no circumstances use countersunk-head screws for installation (see diagram on the right), since these can damage the screw sockets on the receiver. Wherever possible, use the wood screws supplied with the receiver.**

**Before installing the receiver so that it is attached to another piece of equipment (such as a TV set), check with the manufacturer of that equipment or by reference to the documentation supplied with it whether this is permissible, and if so what fittings (screws etc.) you need/can use for this. The temperature rise of each of the units in operation (receiver/TV set) can in some circumstances affect the other unit.**

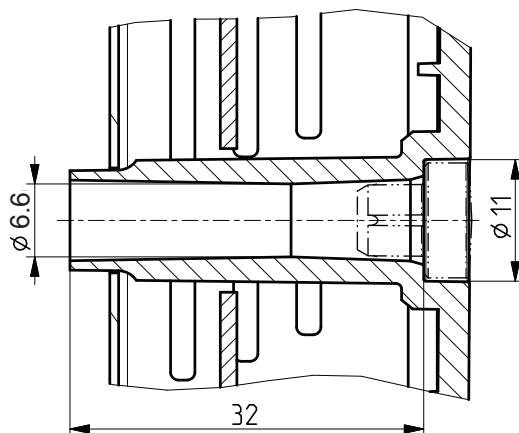


**The wood screws supplied with the receiver should not under any circumstances be used to attach it to a TV set or other electrical equipment! This could damage that equipment, possibly beyond repair.**

**Risk of fatal injury due to electric shock!**

#### Use of other screws:

If because of the installation location or factors associated with it, the screws supplied cannot be used, refer to the diagram alongside when selecting the screws to be used. This shows you the cross-section area of the screw sockets on the receiver and shows which screws (diameter, screw head profiles etc.) can be inserted into the receiver support.



## INSTALLATION AND CONNECTION

Useful information for installing the receiver on a TV set:

For installation by attachment to the rear of a TV set, securing with two screws is sufficient.

The equipment must have one of the following hole patterns (for wall mounting) on its rear panel: 100 x 100; 100 x 200; 200 x 200 or 200 x 400. If this is not the case, a VESA adaptor plate can be obtained from a specialist dealer.

Before installing the receiver it is essential you read the section "Wall mounting" (or the equivalent) in the user instructions for your TV set. This will tell you the screw diameters (M4, M6 or M8) and most importantly the permissible screw penetration depth.



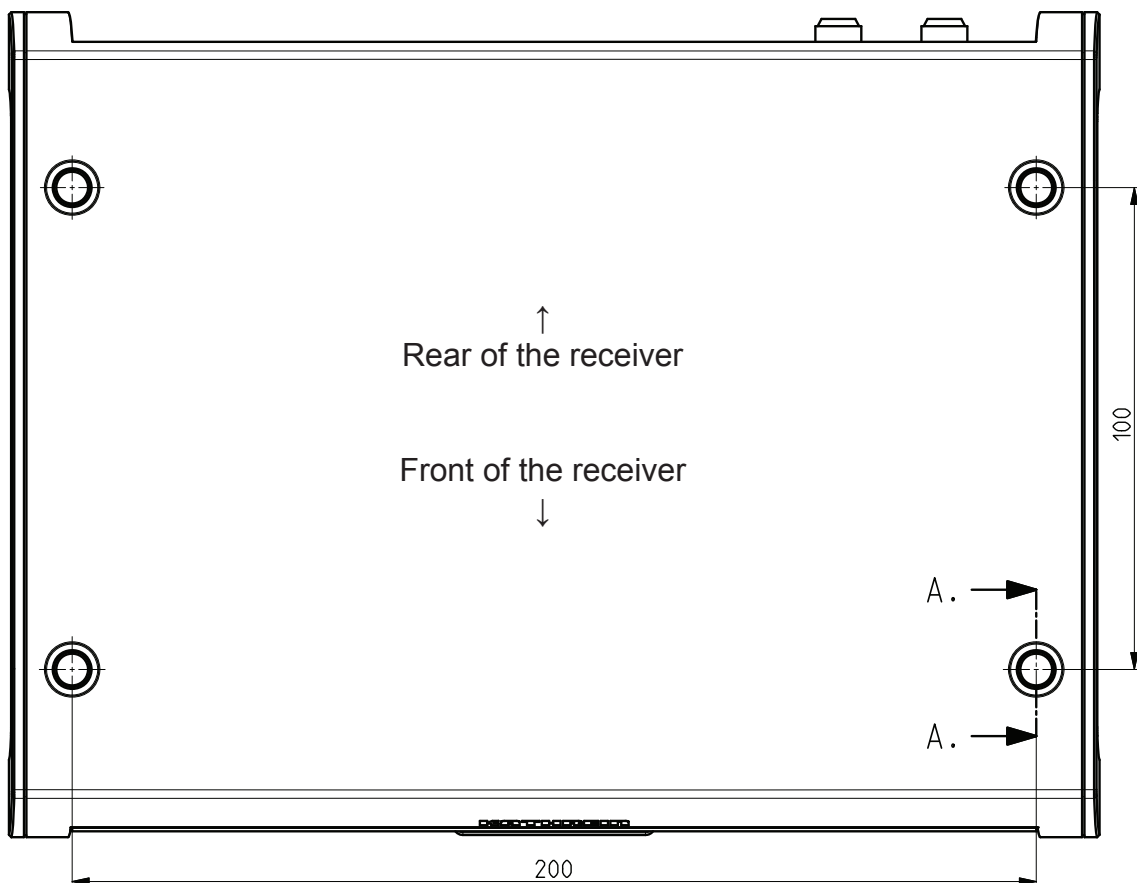
**Before starting any installation work, it is essential you disconnect all the units concerned from the mains. If the screws penetrate too deeply into the TV set they may damage it beyond repair and create the risk of a fatal electric shock!**



**Under no circumstances install the receiver between the TV and a wall support! Installation on the rear panel of a TV set is permissible only if the TV set is resting on a stand that is attached in some other way.**

Marking out the screw/drill points at the installation location:

This diagram is to assist you in marking out the exact screw/drill points at the installation location.



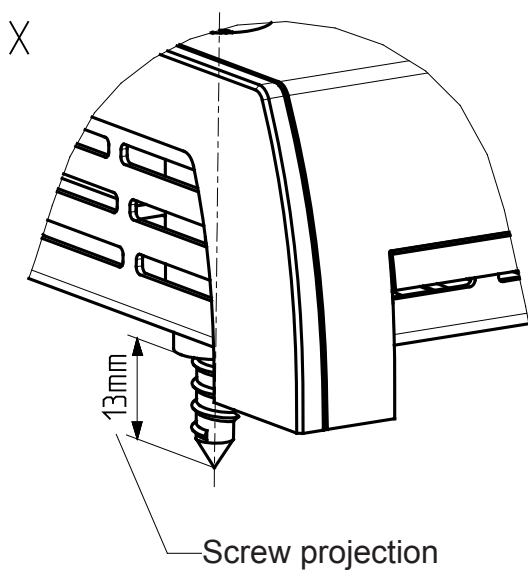
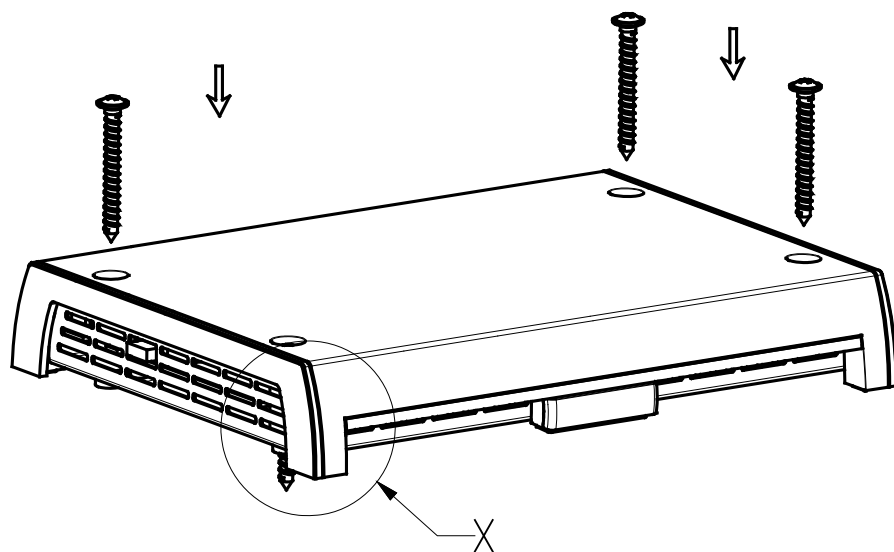
# INSTALLATION AND CONNECTION

## INSTALLATION

Secure the receiver at the installation location previously selected and prepared.



**Do not force it, and take care not to damage either the screw sockets, the receiver casing itself or any cables that are already attached to the receiver!**



# INSTALLATION AND CONNECTION

## LAYING CABLES AND CONNECTING THE TURNTABLE

**Avoid laying the cables across sharp edges and secure the cables against possible chafing points.**

- Connect the coaxial cable (coming from the turntable) to the “IF IN” F socket on the rear of the UFS 940sw.
- Place the infra-red sensor for the receiver close to or directly on top of the TV set and lay the cable to the UFS 940sw. Connect the 6-pin Western connector at the rear to the socket marked “IR REMOTE IN” (see also “Installation of the UFS 940sw receiver” in this section).

## CONNECTING TO THE UFS 940SW



**The receiver must be connected to no other power supply than 12 V DC. The receiver's earth connection must be connected to the negative pole of the motor home or caravan battery.**

Isolate the on-board power supply (master switch “off” or disconnect the positive pole of the on-board power supply battery) before commencing the following work:

- Connect the power cable supplied (depending on the power supply available in your motor home or caravan, either a 12 V supply or a 230 V supply via a power supply unit) to the “**12V == /2,5A**” plug connector on the receiver.

Make sure that the “inline” integrated fuse (5 A) of the cable is fully plugged in and is intact. If the fuse blows, the source of the fault must first be eliminated. The fuse must only ever be replaced by a fuse with the same rating (5 A).



**The fuses in the cable and in the receiver must never be by-passed – cable fire hazard!**

- At the connecting point for the power cable, the voltage must not fall below 10.9 V even with a load of 12 A. Otherwise optimum functioning can no longer be guaranteed.
- Connect the power cable to the respective socket in your motor home or caravan (12 V or 230 V).
- Check the connections before you re-connect the on-board power supply.
- For commissioning and more detailed information on additional operator functions, please consult the operation section of the separate operating manual for the receiver.

# INSTALLATION AND CONNECTION

## FUNCTIONAL INSTRUCTIONS FOR CONNECTION TO THE ON-BOARD POWER SUPPLY

Under certain circumstances, problems can arise when the units are connected to different connecting sockets or circuits/earth potentials. If no others are available, it is recommended that you connect the connecting sockets for receiver and TV set to the same cable. The current rating of the circuit used must be checked with respect to the intended application.

Further information on operating the UFS 940sw receiver can be found in the operating manual supplied with the unit.

# The operating manual

If, despite studying this operating manual, you still have questions about getting started with the unit or using it correctly, or if unexpected problems occur, please contact your specialist dealer.

The Kathrein Technical Customer Support is also at your disposal. Tel: +49 8031 184-700



The automatic overnight updating of the EPG data described in the UFS 940sw operating manual is not performed automatically when the UFS 940sw is being operated on a CAP unit! The EPG data are updated when an individual channel is viewed. At this point however the receiver updates all EPG data for the channels that are broadcast from the currently selected receiving transponder.

For example: You have selected the channel "SAT.1". At this point for instance the EPG data will be updated for "ProSieben" and "KABEL1".

## IMPORTANT INFORMATION FOR CAP 610 BEFORE SETUP



This section of the UFS 940sw operating manual for the turntable assumes that the UFS 940sw and the turntable have been properly installed and connected, as described in the installation and operating manuals!

If you have not yet done so, read the safety instructions at the beginning of the UFS 940sw operating manual and follow them when handling the UFS 940sw and the turntable unit!



Before setting up your satellite system, make sure that the location allows a free view to the satellite positions to the South and is not shadowed by trees or other obstructions. This will save you time and effort!

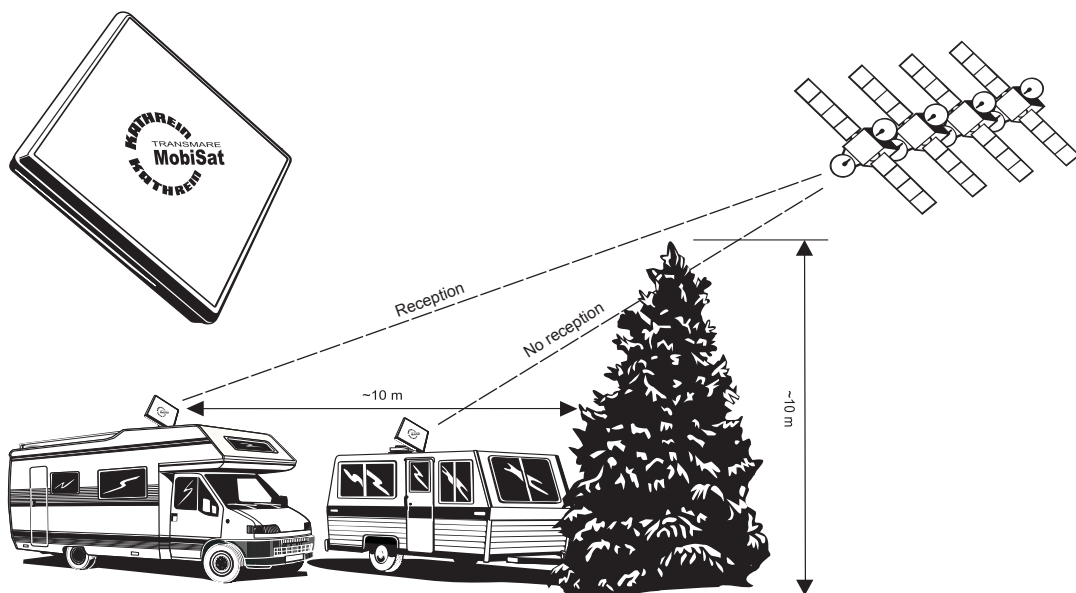


So as to avoid overheating the turntable motors, do not operate the motors continuously for longer than 20 minutes.

None of the search procedures initiated by the CAP will require as much as 20 minutes operation. Only repeated unsuccessful search procedures or manual overrides by the user can cause this limit to be exceeded.



As soon as the ignition signal is no longer present at the turntable, if the receiver is switched on the turntable will be supplied with a +12 V power supply and may automatically move to the last known satellite position. Therefore switch your receiver on only if you wish to use your turntable.



## REMOTE CONTROL

All settings on the UFS 940 are made using the remote control!

# FIRST INSTALLATION







Before using your unit for the first time, read the “Safety Instructions – Important Information” and “Installation and Connection” sections.



Do not connect the unit to the power supply until all installation work has been properly carried out.

The guidance given in the “First Installation” section assumes that the receiver has been properly connected, as per the “Safety Instructions – Important Information” and “Installation and Connection” sections.

Required buttons on remote control for initial installation:



	Numeric entry		Cancel entry, go back
	Go back one step in the first installation		Proceed to the next step in the first installation
	Select/change individual menu parameters, navigation		Confirm the changed values/ setting

First switch your TV set on and select the AV channel slot you have used to connect the UFS 940sw to your TV set. Start the UFS 940sw by pressing the on/off switch on the rear panel. The following on-screen display appears:



Always pay attention to the bar at the bottom of the on-screen display. This provides information on what to do next.





Use the   buttons to select the desired menu language for your receiver. The language selected will be shown highlighted in yellow. The following languages are available:

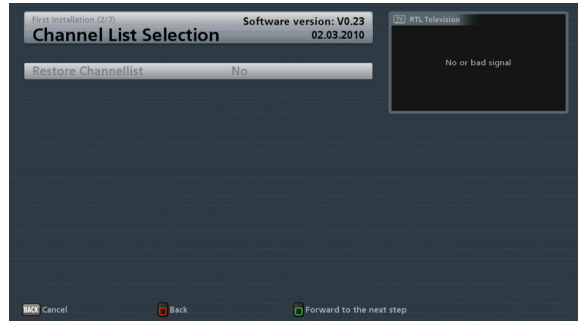
German, English, French, Italian, Spanish, Czech, Dutch, Polish, Norwegian, Turkish and Russian.


Press the  (green) button to move to the next menu.

# FIRST INSTALLATION


The following display appears:

Use the   buttons to select whether to replace the factory pre-programmed channel list by a pre-sorted channel list for a specific country (at present only a limited number of pre-sorted channel lists are available). If you prefer to use the factory pre-programmed channel list, choose "No" under "Restore Channellist".

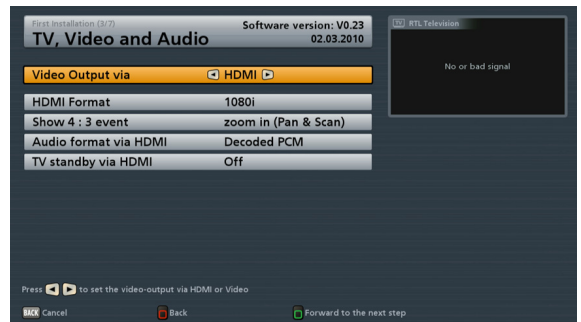


Press the  (green) button to move to the next menu.

The following display appears:

Use the  buttons here to select the basic settings for the video and audio output from the receiver to the TV set.

**For this, refer to the operating manual for your TV set and take care to select only those settings that your TV set can process.**



## Video Output via

Select the connection on the receiver to which you have connected your television.  
Either

### HDMI



#### HDMI Format

Here you can select the picture resolution that will be sent to your TV set. Either

- 1080i (resolution 1920 x 1080, half-screen images)
- 576p (resolution 720 x 576, full-screen images) or
- 720p (resolution 1280 x 720, full-screen images)
- automatically

or

### VIDEO



#### TV Format

Here you can select the TV picture format. Either

- 4:3 or
- 16:9

# FIRST INSTALLATION

## Show 4:3 event

Here you can select the type of screen display mode for 4:3 broadcasts on a 16:9 TV set:

- normal (pillarbox)
- Stretched (Full Screen) or
- zoom in (Pan & Scan)

## Audio format via HDMI

Here you can select the type of audio signal that is transmitted by the HDMI interface. Select the signal that your TV set can process:

- Decoded PCM or
- S/PDIF format

## TV standby via HDMI

If you select "Off", the TV set must be switched on or off separately. If you select "On", the TV set will be switched on automatically as the receiver starts up (but only if the TV set was in stand-by mode). If the receiver is switched off into stand-by mode, the TV set will also be switched to stand-by mode.






*Automatically switching the TV set on/off by the receiver is available only if the TV set supports this function!*

Press the  (green) button to move to the next menu.

The following display appears:

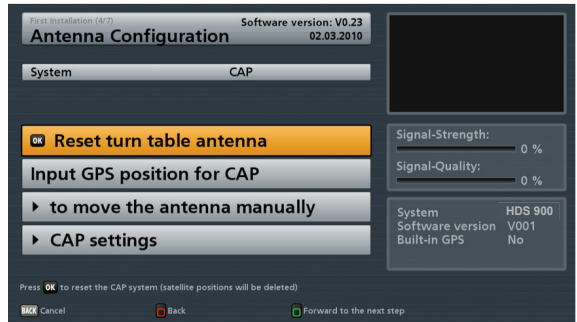



## System

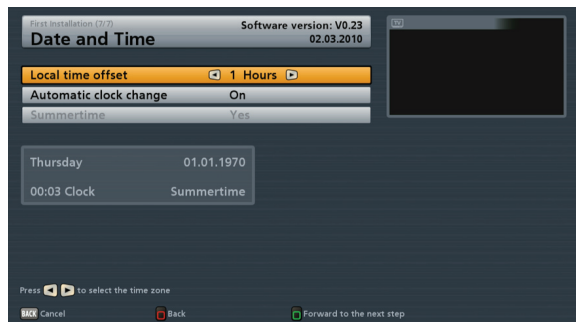
Use the   buttons here at "System" to select "CAP". Then use the   buttons to select the "Initialize CAP" line and press the  button to confirm.

# FIRST INSTALLATION



Your CAP system will then be initialised. You will then see the following display:





Press the  (green) button to move to the next menu. The following display appears:



## Local time offset (UTC)

Here you can use the   buttons to select the local time offset to UTC (formerly GMT) (e.g. for Germany: + 1 hour). You can set the offset in 1 hour steps. The maximum offset is 12 hours (+ and -).

## Automatic clock change (summer/winter time)

Use the   buttons to select whether the receiver should automatically change over to and from summer and winter time. If "On" is selected, the receiver automatically sets itself to the right time. If you select the setting "Off", you must make the change to and from summer time manually by setting the "Summertime" field to "Yes" or "No".

When you have completed all settings, press the  (green) button, to complete the first installation.

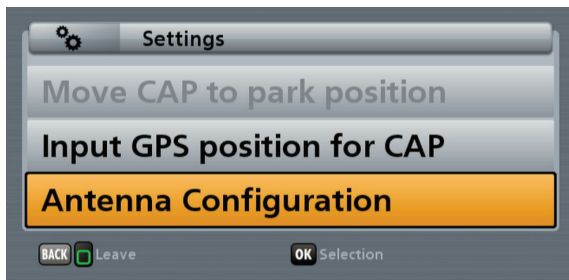
# CAP MENU (TURNTABLE ANTENNA SETTINGS)

## CALLING UP THE CAP MENU

Press the  (green) button. The following display appears:

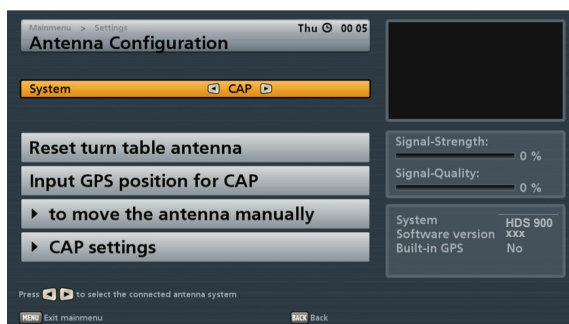
Use the   buttons to select the “Antenna Configuration” line and press

the  button to confirm.



The following display appears:




You can also call up this menu via the main menu “Settings”, “Antenna Configuration” (System: CAP).

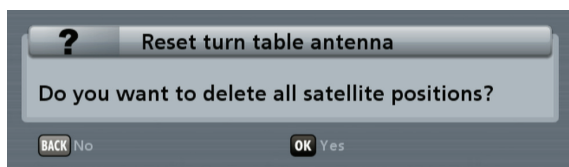


## RESETTING THE CAP SYSTEM (TURNTABLE ANTENNA) (RESET)



All satellite positions found by a search will be deleted.

Use the   buttons to select the “Reset turn table antenna” line and press the  button to confirm. The following display appears:



Press the  button to confirm, or the  button to cancel.

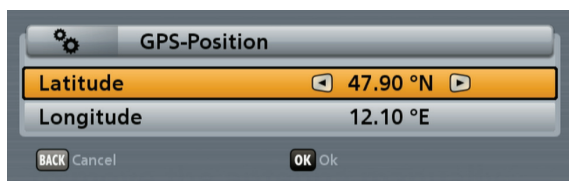
**Note:** Before exchanging any component of the system (such as the receiver) the turntable should be moved to its park position by means of the “Reset turn table antenna” command. The “Reset” deletes all previously saved satellite positions. The satellite data in the UFS 940sw receiver are however retained.





## CAP MENU (TURNTABLE ANTENNA SETTINGS)

### INPUTTING THE CAP GPS POSITION

You can use these functions to prevent long CAP search times for the saved satellites, for instance after you have changed location. Inputting the GPS data for your present position allows the CAP unit to find the desired satellite in a fraction of the time.

Use the   buttons to select the “Input GPS position for CAP” line and press the  button to confirm. The following display appears:



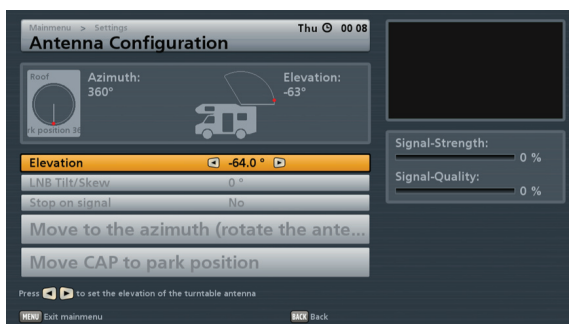
The GPS data can be input using the numeric keys and/or the   buttons. When you have input all the data, press the  button to confirm, or the  button to cancel.

### TO MOVE THE ANTENNA MANUALLY



**This function should be used only by experienced users. Exact knowledge of the satellite position and your present location are necessary when aligning the antenna manually to a satellite. Watch out for any obstacles that the antenna might collide with. The antenna is liable to be damaged by such collisions!**

You can set the inclination and horizontal angle of the antenna using the “Elevation” and “Move to the azimuth (rotate the antenna)” commands. Check your settings by reference to the “Signal-Strength” and “Signal-Quality” bars on the right-hand side. The taller the bar, the stronger the signal received and the better its quality.




The currently displayed position of the CAP is the “park position”.

## CAP MENU (TURNTABLE ANTENNA SETTINGS)

### ELEVATION



Using the numeric keys and/or the   buttons, input the desired elevation value.

Two seconds after completion of the input or when the  button is pressed, the CAP moves to the selected position.

### LNB TILT/SKEW

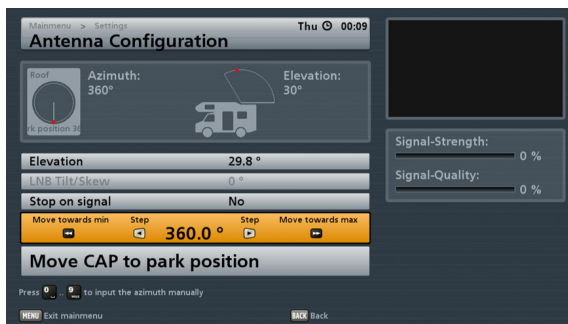
This function is not available.

### STOP ON SIGNAL





Use the   buttons to select whether the CAP should stop automatically (Yes or No) on detection of a satellite signal during manual alignment by the user.

### MOVE TO THE AZIMUTH (ROTATE THE ANTENNA)

As soon as you switch the orange bar to the “Move to the azimuth (rotate the antenna)” line you will see the following display:



You now have the following options for rotating your CAP:

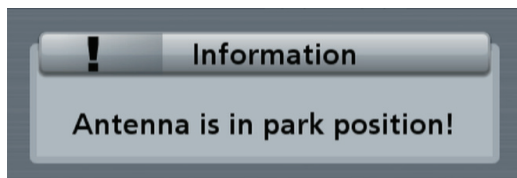
- “Step by step” using the   buttons
- “Move towards min” (minimum rotary position) with the  button or
- “Move towards max” (maximum rotary position) with the  button

**Note:** *If you previously set “Stop on signal” to “Yes”, the antenna will stop as soon as it detects a satellite signal.*

## CAP MENU (TURNTABLE ANTENNA SETTINGS)

### MOVE CAP TO PARK POSITION




Press the  button; the CAP will move to the park position. As soon as the turntable reaches the park position, the following display appears:

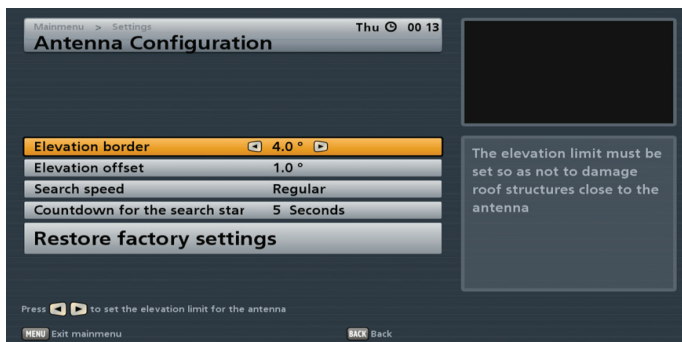


### CAP SETTINGS





This menu allows important basic settings for the CAP, such as the elevation border or elevation offset to be set. These two settings in particular should be performed by a specialist to match your needs and the conditions; if they are set incorrectly the CAP may be damaged!

Use the   buttons to select the “CAP settings” line and press the  button to confirm. The following display appears:





### ELEVATION BORDER AND ELEVATION OFFSET

Neither of these settings should be changed unless the change is necessary because of neighbouring roof structures or other obstacles. The settings are made using the cursor buttons ( ) or the numeric keys.

### SEARCH SPEED

In the fringe areas of the satellite footprints it may happen that a better search result is obtained by using a lower CAP search speed. If the “Regular” search speed does not give satisfactory search results, you can reduce the search speed to “Slow”.

If the signal strength and quality are good however you can set search speed to “Quick”. Normally we recommend the search speed is set to “Regular”.

Make the settings using the   buttons.

## ALIGNMENT (SATELLITE SEARCH)

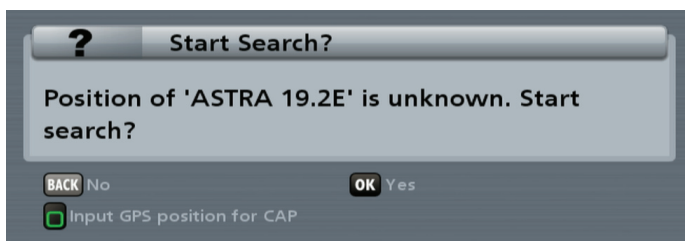
The antenna is aligned automatically. After the UFS 940sw has been switched on, the turntable automatically moves to the last channel received and the associated satellite position (e.g. ARD/ASTRA). This works because each satellite is automatically recognised by the turntable.

The satellite search is started when you select a channel. If the turntable has not yet saved the position of the satellite, you will see the following display when you select a channel (example):

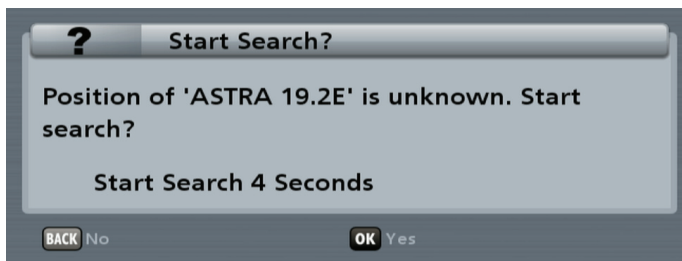


**If the vehicle is not on supports during the search process and people are moving around inside it, there is a risk that movement of the vehicle will mean that the satellite is not found.**

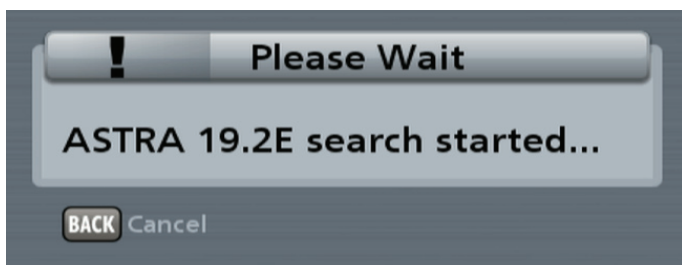
You will see this display if the CAP has not yet saved a satellite position (e.g. after the CAP has been reset or during the First Installation).



You will see this display if the CAP has already saved a satellite position but because for instance the location of the vehicle has changed, the satellite is no longer to be found at the known/saved position.





The search starts automatically after five seconds or if the  button was pressed previously. The search may take a few minutes (generally about two minutes). You will first see the following message:



As soon as the turntable has found the correct satellite, it saves this position. During this process you receive no TV picture. The turntable will then perform an automatic fine adjustment (if the signal level is sufficient, the satellite position will be saved immediately by the turntable). During the fine adjustment you will for the first time receive a TV picture, this however can still “freeze” during the fine adjustment process - whether it does or not is system-dependent.

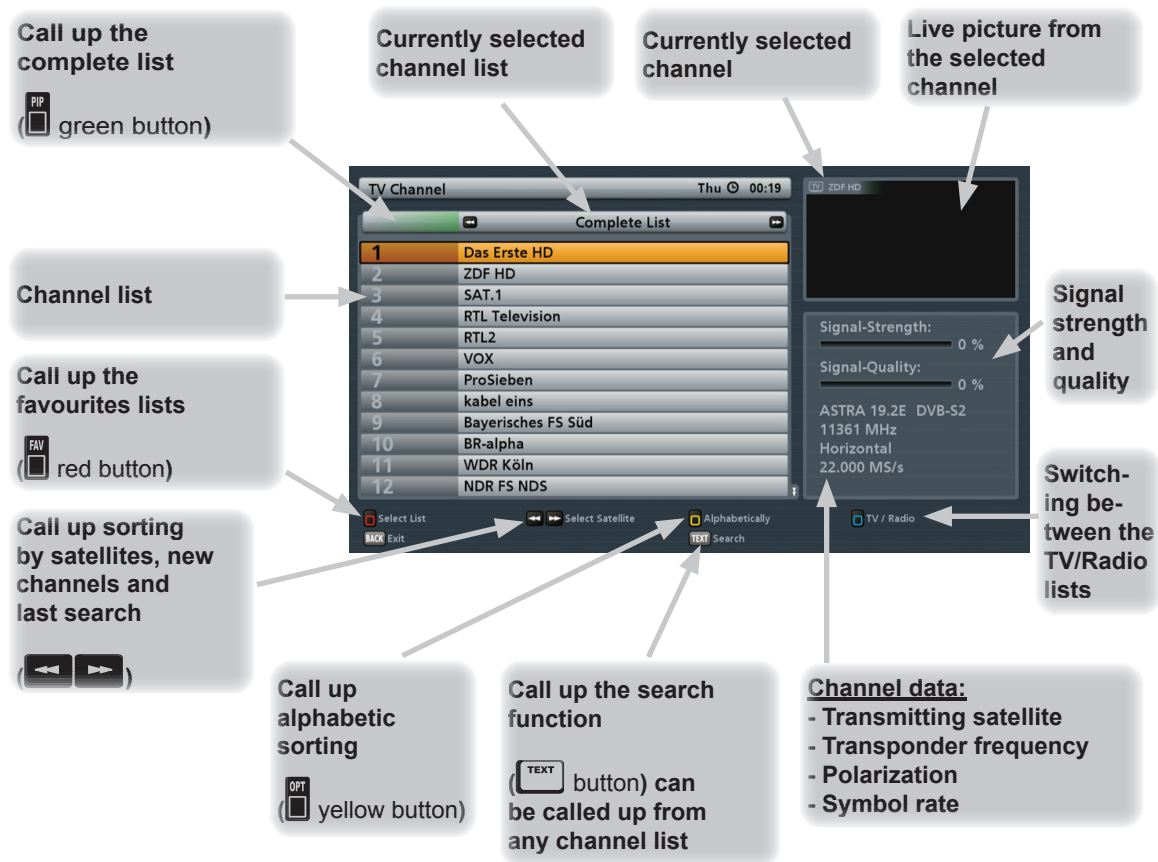
The set position (of the satellite that was found) is saved and the desired channel appears on the TV screen.

# CHANNEL (SATELLITE) SELECTION/PROGRAMMING THE TIMER


By pressing the  buttons all channels can be selected in the sequence that they appear in the current channel list and its sorting. Press the  (blue) button to switch between TV and radio channels.



## CHANNEL SELECTION FROM THE CHANNEL LIST

Providing you are not in a menu, pressing the  button calls up the channel list. The following display appears:





When you open this list the channel list selection/sort order is displayed from where you selected the last channel.

For instance you can use the  buttons to display various channel lists sorted by satellite (e.g. ASTRA 19.2° or Hotbird 13°).



The cursor buttons () are used to navigate within the respective channel list view to select the desired channel. The selection of the desired channel is confirmed by pressing the  button. As soon as the turntable has found the satellite or has reached the known position, you will now hear and



## CHANNEL (SATELLITE) SELECTION/PROGRAMMING THE TIMER

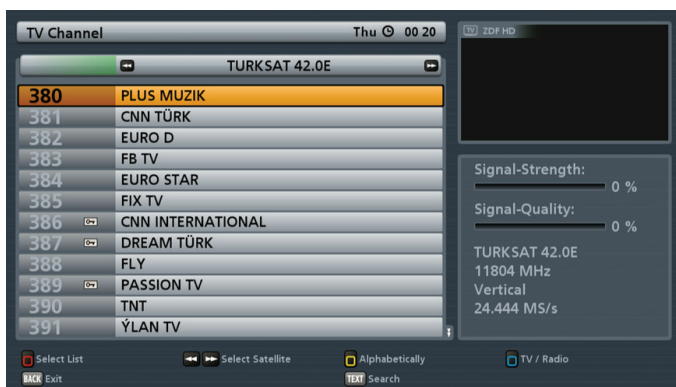
view the currently selected channel in the small window at the top right. To exit the channel list and return to the TV picture, press the  button again, or press the  button.

**Note:** *A comprehensive explanation of the channel list with its detailed functions (e.g. the scan and sort function) can be found in the UFS 940sw operating manual.*

### CHANNEL SELECTION FROM THE CHANNEL LIST (SORTED BY SATELLITE)

To view the channel list sorted by the saved satellites, proceed as follows. Press the  button (starting from the TV picture). If the “green view” does not appear in the complete list, press the  (green) button.

Now use the   buttons to select the desired satellite. You will automatically see the channel list stored for the satellite (see example):



The channel selection functions as previously described “Channel selection from a channel list”.

### TIMER PROGRAMMING

See the UFS 940sw operating manual for details of how to program the timer. When using the UFS 940sw on a CAP 610 please note the following additional instruction:



To prevent the turntable rotating at a time when it is unsupervised or when rotation might be irritating (e.g. in the middle of the night), a timer can be set. During the timer period the turntable is active only if the UFS 940sw is in operation or is in standby mode. If the receiver is completely switched off (switched off at the power socket) and/or the turntable is in park position, the turntable will be inactive during the timer period! The same applies if during the first movement the satellite position is not found.

## CHANGE OF LOCATION

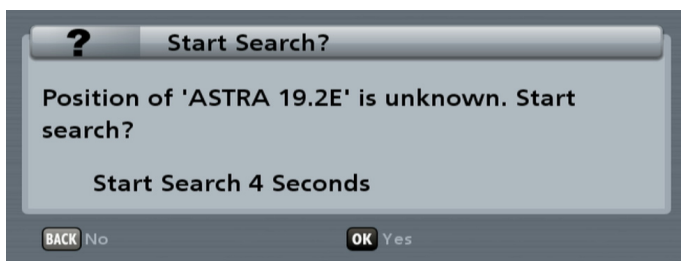
After a change of location, the antenna moves to the last position selected. After initialisation, you will therefore see the following display (example, as it depends on the last selected position):

**For slight changes of location, the antenna can find the satellite very quickly.**

If the satellite is not found at the known position, the search starts automatically.

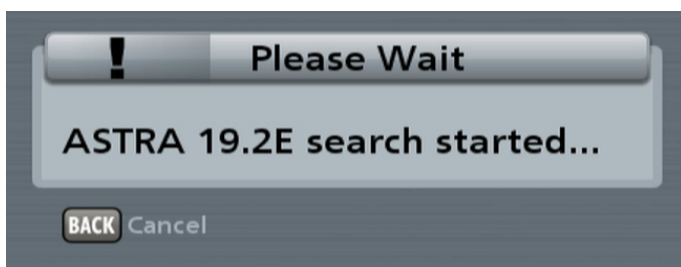


If the search is unsuccessful, the following message appears:



**Note:** *If you know the GPS data for your new location, refer to the item "Inputting the CAP GPS position" in the section "CAP menu (turntable antenna settings)". Inputting the GPS data for your current location allows the search times for your turntable antenna to be reduced.*

The search starts automatically after five seconds or if the  button was pressed previously. The search may take a few minutes (generally about two minutes). You will first see the following message:














As soon as the turntable has found the correct satellite, it saves this position. During this process you receive no TV picture. The turntable will then perform an automatic fine adjustment (if the signal level is sufficient, the satellite position will be saved immediately by the turntable). During the fine adjustment you will for the first time receive a TV picture, this however can still "freeze" during the fine adjustment process - whether it does or not is system-dependent.

The set position (of the satellite that was found) is saved and the desired channel appears on the TV screen.

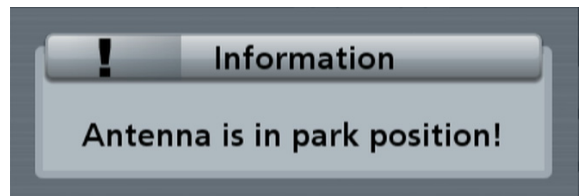
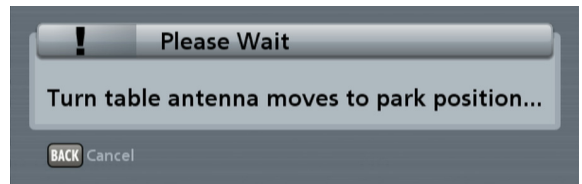
# PARK

## PARKING THE TURNTABLE

You have four options for “parking” the antenna.

1. The antenna can be moved to park position by pressing the **on/off** button twice.
2. Press the  (green) button. Use the   buttons to select the “Move CAP to park position” line and press the  button to confirm.
3. Press the  button to return to the main menu. The   buttons and  button allow you to call up the submenus (“Settings”, “Antenna Configuration”, “to move the antenna manually”). Use the   buttons to switch to the “Move CAP to park position” item and press the  button to park the antenna.
4. When the ignition is operated, the antenna automatically moves to the park position! However, for this to happen the green wire of the power supply cable must be connected to the ignition and the turntable connected to the power supply (see “Connection Diagram”). Refer to the detailed instructions for this in the CAP unit installation manual.

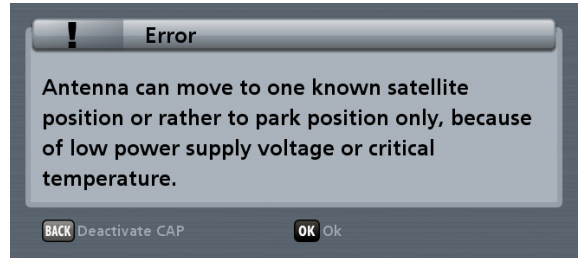
The antenna is moved to park position, and this is then confirmed.



# SPECIAL MESSAGES FROM THE TURNTABLE

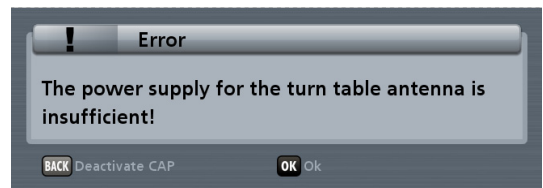
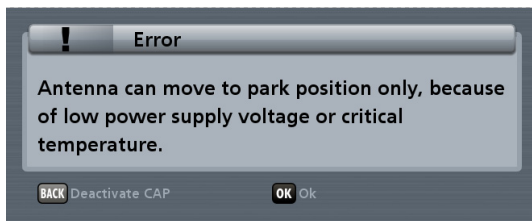
## SYSTEM PROTECTION MESSAGES

The following messages are shown on the screen to protect your reception system and the on-board power supply:



The power supply to the turntable is inadequate (battery voltage below the minimum value). The turntable can still be moved, but communication errors can occur between the UFS 940sw and the turntable (e.g. when scanning for satellites).

If the voltage falls still further, both the following error messages are displayed:



Check the power supply to the turntable and whether it is obstructed (e.g. by a branch). If neither of these causes of faults is displayed, the turntable motor temperature is in the critical range.

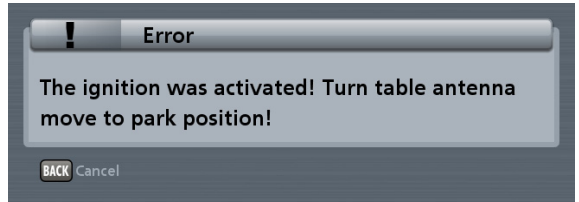
Allow the turntable to stand for a few minutes in its current position, until the turntable motor temperature has reduced. You can also however move the turntable to the park position and let it cool down there.

Press the **OK** button and the turntable will move to the park position.

Press the **OK** button to confirm the displayed message. The turntable cannot be moved any more. Check the power supply to the turntable.

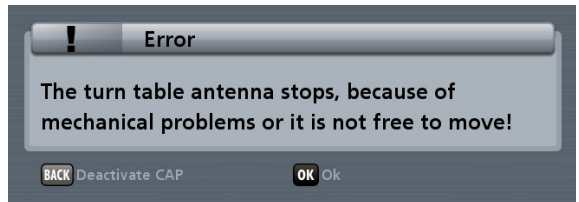
Note: *The antenna should not be moved whilst the battery is being recharged, to prevent peak loads when turning on.*

## SPECIAL MESSAGES FROM THE TURNTABLE

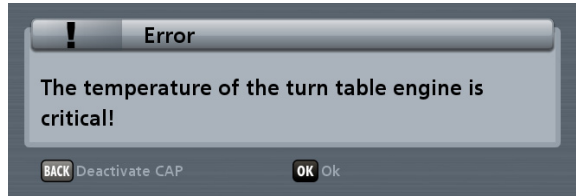


The vehicle ignition was switched on. For safety reasons, the turntable moves into the park position. This operates however only if the green ignition cable for the turntable is connected to the vehicle ignition and the turntable is connected to the power supply! As long as voltage is present at the ignition, the connection to the CAP will remain disabled. This means the CAP cannot be operated.

If the turntable encounters an obstruction, the CAP reverses 10°. This allows the obstacle to be removed more easily.



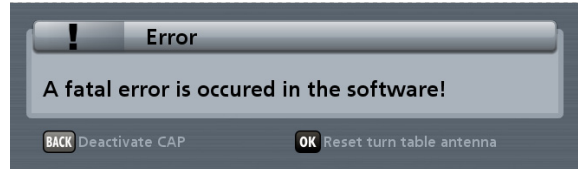
The turntable antenna has reached the mechanical stop or is jammed! Check whether the turntable is obstructed (e.g. by a branch).



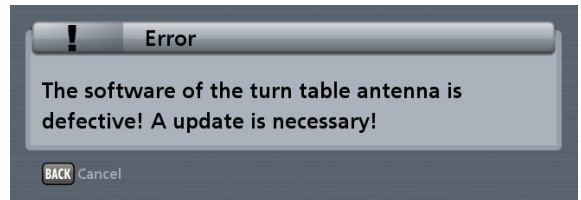
The turntable motor temperature is in the critical range. Allow the turntable to stand for a few minutes in its current position, until the turntable motor temperature has reduced.

# SPECIAL MESSAGES FROM THE TURNTABLE

## MESSAGES ARISING FROM SOFTWARE PROBLEMS



A serious software error has occurred. Reset the turntable in the CAP menu, or contact our service centre.

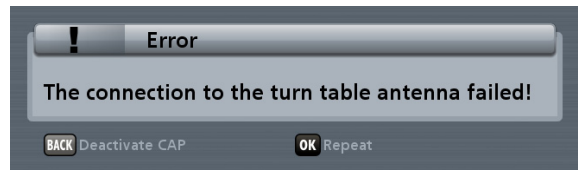


The turntable antenna software is defective. An update is required. Contact our service centre.

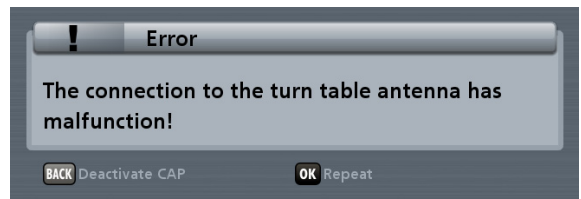
## FURTHER MESSAGES

This message may also appear if:

- the ignition is switched on
- voltage is present at the ignition cable (green)

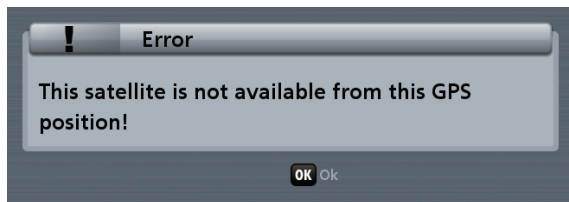


The receiver has lost communication with the turntable. Check the connection between the UFS 940sw and the turntable, the power supply and whether possibly the ignition signal is present at the CAP.

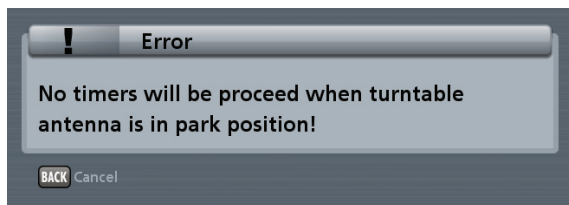


The connection to the turntable is defective. Reset the turntable in the CAP menu, check the connections between the turntable and receiver, or contact our service centre.

## SPECIAL MESSAGES FROM THE TURNTABLE



The satellite you have selected cannot be received from your current location, or there may have been changes made using the "CAP settings" menu (see section "CAP menu (turntable antenna settings), CAP settings"), as a result of which the desired satellite cannot be received.



You have used the UFS 940sw to program programmes for recording (see timer list view in the UFS 940sw EPG). If you now move the CAP to the park position, your recordings will not be performed.



To prevent the turntable rotating at a time when it is unsupervised or when rotation might be irritating (e.g. in the middle of the night), a timer can be set. During the timer period the turntable is active only if the UFS 940sw is in operation or is in standby mode.

If the receiver is completely switched off (switched off at the power socket) and/or the turntable is in park position, the turntable will be inactive during the timer period! The same applies if during the first movement the satellite position is not found.

## DISPOSAL INSTRUCTIONS



Electronic equipment is not domestic waste - in accordance with directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 27<sup>th</sup> January 2003 on used electrical and electronic appliances, it must be disposed of properly.  
At the end of its service life, take this device for disposal at a designated public collection point.



**Spent batteries are special waste!**

Do not throw spent batteries into your domestic waste; take them to a collection point for spent batteries!

**FOR YOUR NOTES**

**FOR YOUR NOTES**

